

S/N Unknown

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Dennis A. Carson et al.	Examiner:	Frederick F. Krass
Serial No.:	Unknown	Group Art Unit:	Unknown
Filed:	Herewith	Docket:	103.014US3
Title:	USE OF ETODOLAC FOR THE TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA		

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement.

Pursuant to 37 C.F.R. §1.98(d), copies of the listed documents are not provided as these references were previously cited by or submitted to the U.S. Patent Office in connection with Applicants' prior U.S. application, Serial No. 10/236221, filed on September 05, 2002, which is relied upon for an earlier filing date under 35 U.S.C. §120.

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The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

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	Application Number	Unknown
	Filing Date	Even Date Herewith
	First Named Inventor	Carson, Dennis
	Group Art Unit	Unknown
	Examiner Name	Krass, Frederick
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US PATENT DOCUMENTS						
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-3,843,681	10/22/1974	Demerson, C. A., et al.	260	326.14 R	06/01/1971
	US-4,337,760	07/06/1982	Rubin, D.	128	1 R	10/31/1979
	US-5,561,151	10/01/1996	Young, J. W., et al.	514	411	01/04/1995
	US-5,811,558	09/22/1998	Adger, B. M., et al.	548	427	04/11/1995
	US-5,955,504	09/21/1999	Wechter, William J., et al.	514	568	03/13/1995

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
	DE-2226340	03/15/1973	Demerson, Christopher A., et al.	C07 D	27/56	
	EP-0289262	11/02/1986	Venuti, M. C., et al.	C07 C	93/00	
	WO-00/02555	01/20/2000	Nardella, Francis A., et al.	A61K	31/40	
	WO-00/13410	03/09/2000	Monroe, D. A.	H04 N	5/76	
	WO-96/28148	09/19/1996	Wechter, William J., et al.	A61K	31/19	
	WO-98/09603	03/12/1998	Wechter, William J., et al.	A61K		
	WO-98/18490	05/07/1998	Clynes, M. M.	A61K	45/06	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		The Merck Index, Eleventh Edition, Budavari, S., et al., (eds.), Merck & Co., Inc., Rahway, N.J., Entry No. 3831 -- "Etodolac", (1989), p. 608	
		In: Remington's Pharmaceutical Sciences, Eighteenth Edition, Gennaro, A.R., (ed.), Mack Publishing Company, Easton, PA, (1990), pp. 1115-1121	
		ABRAMSON, S. B., et al., "The Mechanisms of Action of Nonsteroidal Antiinflammatory Drugs", Arthritis & Rheumatism, 32 (1), (Jan. 1989), pp. 1-9	
		ALEXANIAN, R., et al., "The Treatment of Multiple Myeloma", The New England Journal of Medicine, 330 (7), (Feb. 17, 1994), pp. 484-489	
		BARLOGIE, B., et al., "Prognostic Factors with High-Dose Melphalan for Refractory Multiple Myeloma.", Blood, 72, (1988), 2015-2019	
		BATAILLE, R., et al., "Multiple Myeloma", New England Journal of Medicine, 336, (1997), 1657-1664	
		BECKER-SCHARFENKAMP, U., et al., "Evaluation of the Stereoselective Metabolism of the Chiral Analgesic Drug Etodolac by High-Performance Liquid Chromatography", Journal of Chromatography, 621 (2), (Nov. 24, 1993), pp. 199-	

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DATE CONSIDERED

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		207	
		BELLOSILLO, B. , et al., "Aspirin and Salicylate Induce Apoptosis and Activation of Caspases in B-Cell Chronic Lymphocytic Leukemia Cells", <u>Blood</u> , 92 (4), (Aug. 15, 1998),pp. 1406-1414	
		BERENDES, U. , et al., "Simultaneous Determination of the Phase II Metabolites of the Non Steriodal Anti-inflammatory Drug Etodolac in Human Urine", <u>Enantiomer</u> , 1, Abstract Only, Chemical Abstracts, Abstract No. 126:207064q,(1996),415-422	
		BRENNA, E. , et al., "New Enzymatic and Chemical Approaches to Enantiopure Etodolac", <u>Tetrahedron</u> , 53, (1997),17769-17780	
		BROCKS, D. R., et al., "Etodolac Clinical Pharmacokinetics", <u>Clinical Pharmacokinetics</u> , 26 (4), (1994),pp. 259-274	
		CARSON, D. A., et al., "Oral Antilymphocyte Activity and Induction of Apoptosis by 2-chloro-2'-arabino-fluoro-2'-deoxyadenosine", <u>Proc. Natl. Acad. Sci. USA</u> , 89 (7), (Apr. 1992),pp. 2970-2974	
		CHINETTI, G. , et al., "Activation of Proliferator-activated Receptors alpha and Y Induces Apoptosis of Human Monocyte-derived Macrophages", <u>The Journal of Biological Chemistry</u> , 273 (40), (Oct. 2, 1998),pp. 25573-25580	
		CUNNINGHAM, D , et al., "High-dose Melphalan for Multiple Myeloma: Long-term Follow-up Data", <u>Journal of Clinical Oncology</u> , 12, (1994),764-768	
		DEMERSON, C. A., et al., "Etodolic Acid and Related Compounds. Chemistry and Antiinflammatory Actions of Some Potent Di- and Trisubstituted 1,3,4,9-Tetrahydropyrano[3,4-b]indole-1-acetic Acids", <u>Journal of Medicinal Chemistry</u> , 19 (3), (1976),pp. 391-395	
		DEMERSON, C. A., et al., "Resolution of Etodolac and Antiinflammatory and Prostaglandin Synthetase Inhibiting Properties of the Enantiomers", <u>J. Med. Chem.</u> , 26 (12), (Dec. 1983),pp. 1778-1780	
		DRACHENBERG, D. E., "Treatment of Prostate Cancer: Watchful Waiting, Radical Prostatectomy, and Cryoablation", <u>Seminars in Surgical Oncology</u> , 18 (1), (Jan/Feb. 2000),pp. 37-44	
		DUFFY, C. P., et al., "Enhancement of Chemotherapeutic Drug Toxicity to Human Tumour Cells In Vitro by a Subset of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)", <u>European Journal of Cancer</u> , 34 (8), (July 1998),pp. 1250-1259	
		HAHNFELD, L. E., et al., "Prostate Cancer", <u>The Medical Clinics of North America - The Aging Male Patient</u> , 83 (5), (Sept. 1999),pp.1231-1245	
		HAROUSSEAU, J. L., et al., "Double-Intensive Therapy in High-Risk Multiple Myeloma", <u>Blood</u> , 79 (11), (June 1, 1992),pp. 2827-2833	
		KRAJEWSKI, S. , et al., "Detection of Multiple Antigens on Western Blots", <u>Analytical Biochemistry</u> , 236 (2), Article No. 0160,(May 1996),pp. 221-228	
		LANDIS, S. H., et al., "Cancer Statistics, 1998", <u>CA Cancer J. Clin.</u> , 48 (1),	

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

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Examiner Name	Krass, Frederick

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		(1998),pp. 6-29	
		LEE, D. H., "Proteasome Inhibitors: Valuable New Tools For Cell Biologists", <u>Trends in Cell Biology</u> , 8, (October 1998),pp. 397-403	
		LEHMANN, J. M., et al., "Peroxisome Proliferator-activated Receptors alpha and Y Are Activated by Indomethacin and Other Non-steroidal Anti-inflammatory Drugs", <u>The Journal of Biological Chemistry</u> , 272 (6), (Feb. 7, 1997),pp. 3406-3410	
		LEONI, L. M., et al., "Induction of an Apoptotic Program in Cell-Free Extracts by 2-Chloro-2'-deoxyadenosine 5'-triphosphate and Cytochrome C", <u>PNAS, USA</u> , 95 (16), (Aug. 4, 1998),pp. 9567-9571	
		LOCHMULLER, C. H., et al., "Chromatographic Resolution of Enantiomers -- Selective Review", <u>Journal of Chromatography</u> , 113 (3), (Oct. 22, 1975),pp. 283-302	
		MARTEL, R. R., et al., "Anti-inflammatory and Analgesic Properties of Etodolic Acid in Rats", <u>Canadian Journal of Physiology and Pharmacology</u> , 54 (3), (June 1976),pp. 245-248	
		MOONEY, P. T., et al., "Cell Pathways' Exisulind 'Aptosyn' Demonstrates Potential to Delay Hormone Therapy in Post-Prostatectomy Men at Risk of Prostate Cancer Recurrence", http://biz.yahoo.com/bw/000501/ga_cell_pa_1.html , (May 2000),3 p.	
		NARDELLA, FRANCIS A., et al., "Enhanced Clearance of Leukemic Lymphocytes in B Cell Chronic Lymphocytic Leukemia (CLL) with Etodolac", <u>Arthritis & Rheumatism</u> , 42 (9) Supplement, Abstract No. 41, (Sept. 1999),p. S56	
		RICOTE, M., et al., "The Peroxisome Proliferator-Activated Receptor-Y is a Negative Regulator of Macrophage Activation", <u>Nature</u> , 391, (Jan. 1, 1998),pp. 79-82	
		RIEDEL, D. A., et al., "The Epidemiology of Multiple Myeloma", <u>Hematology/Oncology Clinics of North America</u> , Multiple Myeloma, 6 (2), (April 1992),pp. 225-247	
		ROYALL, J. A., et al., "Evaluation of 2',7'-Dichlorofluorescein and Dihydrorhodamine 123 as Fluorescent Probes for Intracellular H2O2 in Cultured Endothelial Cells", <u>Archives of Biochemistry and Biophysics</u> , 302 (2), (May 1, 1993),pp. 348-355	
		SHIFF, S. J., et al., "Nonsteroidal Antiinflammatory Drugs Inhibit the Proliferation of Colon Adenocarcinoma Cells: Effects on Cell Cycle and Apoptosis", <u>Experimental Cell Research</u> , 222, Article No. 0023,(1996),pp. 179-188	
		TANG, D. G., et al., "Target to Apoptosis: A Hopeful Weapon for Prostate Cancer", <u>The Prostate</u> , (1997),pp. 284-293	
		VAN BREEMEN, R. B., et al., "Characterization of Oxygen-Linked Glucuronides by Laser Desorption Mass Spectrometry", <u>Biomed. Mass Spectrom.</u> , 11, Abstract	

EXAMINER**DATE CONSIDERED**

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		Only, Chemical Abstracts, Abstract No. 101:106777c,(1984),278-283	
		VENUTI, M. C., et al., "Synthesis and Biological Evaluation of omega-(N,N,N-trialkylammonium)alkyl Esters and Thioesters of Carboxylic Acid Nonsteroidal Antiinflammatory Agents", <u>Pharm. Res.</u> , <u>6</u> , Abstract Only, Chemical Abstracts, Abstract No. 112:111681y,(1989),867-873	
		WANG, X. , et al., "Antipoptotic Action of 1,25-Dihydroxyvitamin D3 Is Associated with Increased Mitochondrial MCL-1 and RAF-1 Proteins and Reduced Release of Cytochrome c", <u>Experimental Cell Research</u> , <u>235</u> (1), Article No. EX973667,(1997),pp. 210-217	
		WECHTER, W. J., et al., "E-7869 (R-Flurbiprofen) Inhibits Progression of Prostate Cancer in the TRAMP Mouse", <u>Cancer Research</u> , <u>60</u> , (April 15, 2000),pp. 2203-2208	
		WEISS, H. A., et al., "Aspirin, Non-Steroidal Anti-Inflammatory Drugs and Protection from Colorectal Cancer: a Review of the Epidemiological Evidence", <u>Scandinavian Journal of Gastroenterology</u> , <u>31</u> (Suppl. 220), (1996),pp. 137-141	
		WILEN, S. H., et al., "Strategies In Optical Resolutions", <u>Tetrahedron</u> , <u>33</u> (21), Tetrahedron Report Number 38,(1977),pp. 2725-2736	

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